

Calendar

Monday, September 18

2:30 p.m. Particle Astrophysics Seminar

- Curia II

Speaker: L. Roszkowski, University of Sheffield/CERN

Title: A Solution to the $\Omega_b - \Omega_{DM}$

Coincidence Puzzle

3:30 p.m. DIRECTOR'S COFFEE

BREAK - 2nd Flr X-Over

4:00 p.m. All Experimenters' Meeting -

Curia II

All Experimenters' Meeting

Special Topics: Meson Test Beam

Upgrade; Zebra Mussel Control;

LHC@fnal

Tuesday, September 19

11:00 p.m. Computing Techniques

Seminar - FCC 1

Speaker: J. Fortes, University of Florida

Title: Virtual Machines in a Distributed

Environment

3:30 p.m. Director's Coffee Break - 2nd

floor crossover

THERE WILL BE NO ACCELERATOR

PHYSICS AND TECHNOLOGY

SEMINAR TODAY

Click [here](#) for a full calendar with links to additional information.

Weather



Partly Cloudy **69°/45°**

[Extended Forecast](#)

[Weather at Fermilab](#)

Current Security Status

Lightning bolts jumble communications, power



The Tevatron relies on a high-speed and delicate communication system, and lightning strikes can cause power glitches and scramble the signals of underground cables. *(Image courtesy of Tim Koeth.)*

The Tevatron boasts four miles of particle-accelerating circumference, but during thunderstorms it can become a bullseye for stray lightning bolts. Todd Johnson, Tevatron operations specialist, says lightning occasionally ruins valuable stores of particles. "The Tevatron is a magnificent and wonderful thing," he said, "but it's also very fragile."

When clouds build up extra electrons, they need to get rid of the charge somehow. A thunderous blast of lightning often results, but disruption of accelerator operations doesn't require a direct hit. "When lightning strikes, large currents flow through the ground," Johnson said. The Tevatron relies on a high-speed and delicate communication system, and strikes can cause power glitches and scramble the signals of underground cables. "A lot of the signals between Tevatron buildings say 'OK, here's a piece of data you need to keep running'," Johnson said. When significantly

Safety Tip of the Week

Feeling sick?



Contact with contaminated surfaces is a major route for pathogen transmission. Regular cleaning with disinfectant wipes is an effective way to control this problem.

Everyone has days when they don't feel well. When this happens, you need to decide whether it's best to get extra rest and/or to obtain professional help. According to Fermilab's Site Occupational Medical Director, Dr. Brian Svazas, "it all comes down to communicability, debilitation or need for follow up." Here are guidelines for managing some of the more common infectious conditions.

See doctor / Highly contagious

- Strep throat - Fever, white patches in throat often with swollen neck glands.
- Conjunctivitis - Eyes bright red, creamy white stuff in corners, eyelashes matted.

Contagious

- Cold or flu - Achy, tired, fever, chills, sweats.

See doctor / Not contagious

- Sinus pain - Pain around eyes,

Secon Level 3

Wilson Hall Cafe

Monday, September 18

- Minestrini
- Chicken & Mushroom Cheese Steak
- Baked Chicken Enchiladas
- Pot Roast
- Garden Turkey
- Assorted Slice Pizza
- Szechwan Green Bean w/Chicken

The Wilson Hall Cafe accepts Visa, Master Card, Discover and American Express.

[Wilson Hall Cafe Menu](#)

Chez Leon

Wednesday, September 20

Lunch

- Pastelon de Pollo
- Confetti Salad
- Tropical Fruit Platter w/Lime

Thursday, September 21

Dinner

- Caponata
- Grilled Rack of Lamb
- Puree of Potatoes and Celery Root
- French Green Beans
- Amaretto Soufflé

[Chez Leon Menu](#)

Call x4598 to make your reservation.

Search

Search the Fermilab Today Archive

Info

interrupted, the beam automatically terminates.

To avoid the threat of brewing storms, run coordinators sometimes call Jim Morgan, a Fermilab engineering physicist known as "the weatherman." "I was a weatherman for five years, so a few guys call me that around here," he said. Morgan feels predicting the weather to exacting detail is a dicey business, but he lends a hand when necessary. "A small number of times per year, having the right knowledge about this kind of thing can help quite a bit," he said.

Johnson says thunderstorms affect the Tevatron in other, far more annoying ways. When lightning strikes, fire alarms in any of the dozens of Tevatron buildings can trip. "I once spent an entire night shift doing nothing but driving to buildings where alarms were set off," he said. Although the Tevatron is sensitive to electrical storms, Johnson feels it is a surprisingly robust system. "But when we see a thunderstorm approaching," Johnson said, "we cross our fingers."
--*Dave Mosher*

Readers Write

Crossword

Dear FT:

I'm happy to report that Fermilab has made the New York Times Thursday Crossword Puzzle as 54 across: "Eponym of Physics lab near Chicago."

I would consider Thursday quite an honor in the crossword world--it marks the first step into serious crossword territory: it sits respectfully on the cusp between Wednesday, designed for the knowledgeable enthusiast, and Saturday--a puzzle for the seriously

forehead, cheekbones, top of teeth.

- Cough - Feels deep, short breath, green mucous.
- Earache - Painful and difficulty hearing.

Not necessarily contagious (if good personal hygiene is maintained)

- GI virus - Nausea, vomiting, watery diarrhea, aches, low-grade fever
- Food poisoning - Nausea, vomiting

If in doubt, feel free to contact the Medical Department at 630-840-3232 or medical@fnal.gov. The text of Fermilab's sick leave policy is [here](#).

Safety Tip of the Week Archive

Correction

Friday's "Milestone" piece mentioned a reception to celebrate some recent achievements of the MINOS experiment. We failed to recognize the completion of two other NuMI/MINOS tasks, completed a day before the reception: the repair of the NuMI focusing horn and replacement of the NuMI target. We regret the oversight.

Promotions to Scientist I

Nine scientists were recently promoted to Scientist I, a position without term limit. This promotion marks a big step in the life of a Fermilab scientist--it recognizes valuable contributions made over the years.

Fermilab Today congratulates **Steve Mrenna**, promoted for his international stature in collider phenomenology; **Peter Shanahan**, promoted for his many contributions to the MINOS experiment; **Ron Moore**, promoted for his excellent work on the Tevatron, leading to record

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intense, almost professional crossword worker. (And who has the time or energy to do Friday anyway?).

--*Kelly Daley, University of Chicago*

If you would like to submit a letter, write to us at today@fnal.gov.

In the News

CNN, September 14, 2006:
Space station spreads its solar wings
 CAPE CANAVERAL, Florida (AP) -- NASA unfurled two solar wings on the new 17-1/2-ton addition to the international space station early Thursday after overcoming a software problem that delayed the maneuver for hours.

As they opened separately like accordion window blinds, the solar wings looked like cosmic blankets of gold bars in the reflection of an orbital sunrise.

"Big day for space station. Congratulations," astronaut Pam Melroy in Mission Control radioed Atlantis commander Brent Jett. "We're all extremely happy."

The astronauts had adjusted the space station's position before starting, then halted each deployment midway for about 30 minutes so the solar panels could be heated by the sun to prevent them from sticking together, a problem astronauts have encountered before.

NASA engineers ran into one early glitch with the space station's new Ferris wheel-like rotating joint that allows the solar arrays to move with the sun to maximize the amount of power generated. They were able to fix the software problem, but

luminosities; **Jane Nachtman**, promoted for her contributions to the CDF detector and its physics; **Huan Lin**, promoted for his many contributions to the Sloan Digital Sky Survey and its science; **Dan Broemmelsiek**, promoted for his contributions to the Recycler, especially its stochastic cooling; **Chen-Yang Tan**, promoted for his contributions to the Tevatron and its increased luminosity; **Aurelio Juste**, promoted for his contributions to the DZero detector and its physics; and **Andreas Jansson**, promoted for his expertise in accelerator instrumentation and accelerator physics, and their application to the Tevatron.

[Images of recipients](#)

Photo of the Day



Construction began Friday on the [LHC@FNAL remote operations center](#) on the first floor of Wilson Hall. The area will be sealed-off with plywood so that curious employees will not be injured during the process. "But we do plan to post photographs on the wall next to the construction as we go," said Elvin Harms. Construction is expected to be complete this winter. (Click image to see what the center will look like when it is completed.)

Accelerator Update

September 13 - 15

- Two stores provided 18 hours and 9 minutes of luminosity
- Store 4952 quenched

[Read the Current Accelerator Update](#)

[Read the Early Bird Report](#)

[View the Tevatron Luminosity Charts](#)

it put the day's activities several hours behind schedule.

[Read More](#)

Announcements

Annual benefits enrollment

Annual benefits enrollment is coming soon. You will receive your annual enrollment packet via your mail station before September 30.

[Upcoming Activities](#)

